



# United States Department of the Interior

## FISH AND WILDLIFE SERVICE

911 NE. 11th Avenue

Portland, Oregon 97232-4181

IN REPLY REFER TO:

SEP 24 1993

### Memorandum

To: Regional Director, Region 1  
Portland, Oregon

From: Acting Assistant Regional Director-Ecological Services  
Portland, Oregon

Subject: Intra-Service Section 7 Consultation on the Proposed Issuance of a Section 10(a)(1)(B) Incidental Take Permit for Northern Spotted Owls by the Murray Pacific Corporation (1-3-93-FW-15)

This biological opinion responds to your request for intra-Service consultation within the U.S. Fish and Wildlife Service (Service) pursuant to section 7 of the Endangered Species Act of 1973 (16 U.S.C. 1536), as amended (Act). At issue are the impacts that issuance of an incidental take permit to the Murray Pacific Corporation (Murray) may have on the northern spotted owl (*Strix occidentalis caurina*) (owl) and the marbled murrelet (*Brachyramphus marmoratus*), both federally listed threatened species.

This biological opinion was prepared using information contained in: the Habitat Conservation Plan (HCP) (Murray Pacific Corporation 1993), Implementation Agreement (IA), Environmental Assessment (EA) (U.S. Fish and Wildlife Service 1993) for the proposed action, the Interagency Scientific Committee (ISC) report (Thomas et al. 1990), the Draft Recovery Plan for the Northern Spotted Owl (Lujan et al. 1992), the Forest Ecosystem Management Assessment Team Report (USDA et al. 1993), and our files.

Marbled murrelets also are known to occur in the project vicinity. Marbled murrelets have been detected on Murray property, near a stand of late-successional forest. However, occupancy of suitable habitat by murrelets on the Murray property has not been verified. Additional protocol surveys are being conducted by Murray to verify the status of this species on their lands. Should surveys indicate that murrelets occupy stands of late-successional forest on Murray's property, the Service would be required to evaluate the new information and reinitiate consultation to address any adverse affects to the species. The issuance of the proposed permit does not authorize the incidental take of the murrelet. Therefore, no potential murrelet habitat that is located on Murray lands within the range of this species, would be harvested until protocol surveys have been conducted and timber stands have been determined to be unoccupied. Should the results of the surveys indicate that timber stands are occupied by murrelets, no harvest may proceed until an amendment to the HCP has been made, the reinitiation of consultation has been completed and the permit has been amended, or until another section

10(a)(1)(B) permit has been issued for incidental take of the marbled murrelet. Under these provisions, issuance of the proposed permit is not likely to adversely affect the marbled murrelet.

#### BIOLOGICAL OPINION

It is the biological opinion of the Service that the proposed action is not likely to jeopardize the continued existence of the northern spotted owl. Critical habitat has been designated for this species. The designated critical habitat boundaries do not encompass the project site; therefore, the proposed action would not adversely modify or destroy designated critical habitat.

#### DESCRIPTION OF THE PROPOSED ACTION

The Service proposes to issue a section 10(a)(1)(B) incidental take permit for owls that occur within the 54,610 acres of managed timberland owned by Murray in the Mineral Block of eastern Lewis County, Washington. A complete description of the proposed action and the mitigation and compensation measures that would be undertaken by Murray is contained in the HCP for the timberlands and the EA accompanying that document. However, due to the complexity of timber management, owl biological requirements, and the sensitivity of this issue; we are including a brief summary of the proposal and mitigative measures developed, analyzed, and included in the HCP and accompanying documents. Presently, timber management and economic realities dominate harvest and forest planning direction. After listing, the ISC, comprised of government, private, and organization biologists familiar with spotted owl biology and forest management was established to formulate a strategy for the management and conservation of the species. The interagency plan (Thomas et al. 1990) was based largely on the management and protection of occupied owl habitat on Federal lands as owl reserves known as Habitat Conservation Areas (HCA). The strategy further recommended that lands between HCAs (such as Murray lands which lie between two units of the Gifford Pinchot National Forest that are designated HCAs) be managed to facilitate the successful dispersal of juvenile owls between HCAs. The draft recovery plan for this species also identified development, maintenance, and protection of dispersal habitat between reserve units of Federal lands occupied by owls as an essential requirement for recovery of the species. This dispersal requirement is the principal objective of the Murray HCP. Murray proposes to harvest 1,893 acres of suitable owl habitat during the first 10 years of the HCP that are currently within two known median home ranges of owls centered on Murray lands. An additional 476 acres of suitable owl habitat will be harvested during the same 10-year period within the eight known home range circles of owls which are centered off the Murray property. They also propose to harvest timber during the 100 year life of the HCP that may occur within future owl territories in areas that are not presently known to support owls. This will likely result in the incidental take of owls. However, the direction and scope of timber management on Murray lands in Lewis County will

be changed for the next 100 years to accommodate dispersal needs of the owl. Measures included in the HCP to minimize, mitigate, and monitor incidental take and further the recovery of the species include:

1. Known owl activity centers and other areas likely to support nesting owls will be monitored annually and protected from disturbance (i.e. road building or timber harvest) from 1 March through 30 September during years of active reproduction.
2. A minimum of 1,222 acres (about 2.2 percent) of ownership will be permanently protected from future harvest and retained as mature forest habitat. State Forest Practices Rules and Regulations do not require full protection from harvest in these areas.
3. No more than 20 percent (10,000 acres) of the commercial timberland on the ownership will be clearcut harvested in any 10-year period and no more than 5 percent (2,500 acres) will be harvested in any 1 year (actual harvest rates may be considerably less in many years).
4. Clearcut harvest size will range from 5 acres to 120 acres and average 40 acres over any 10-year period. Existing regulations allow clearcuts of up to 250 acres in size without special documentation and public review.
5. A minimum of two residual live trees from the dominant or codominant size classes and three snags will be retained for every acre of clearcut harvest, as required by State Forest Practices Rules and Regulations.
6. A minimum of two logs measuring at least 12 inches in diameter and 20 feet in length will be left for each acre of clearcut harvest, as required by State Forest Practices Rules and Regulations.
7. All clearcut sites will be replanted with native coniferous seedlings within 2 years of harvest, consistent with standard forest practices in the region.
8. Precommercial thinning will be conducted on approximately 5,000 acres currently in need of stocking control, and any future stands with similarly high densities of trees, to accelerate stand development and individual tree size to facilitate owl use.
9. Fertilization will be tested as a means of accelerating stand development at the seedling/sapling stage, and up to 1,000 acres will be fertilized annually if results are positive.
10. Pruning will be tested as a means of accelerating the development of dispersal habitat by pruning 1,000 acres between 1993 and 1998 and monitoring results.
11. Total acreage of dispersal habitat on the ownership will be increased from an existing 11,412 acres to an estimated 23,233 acres by 2043 and remain at an average of 23,000 acres through 2093.

12. Gap distance (areas beyond 1/4 miles from dispersal habitat) between all blocks of dispersal habitat will be decreased from 26,556 acres to 8,720 acres by 2043. After that time, the amount of gap will remain at about 8,720 acres through 2093 except as follows: less than 1000 acres may be greater than 1/4 mile distance to suitable dispersal habitat but less than 1/2 mile during the 100 year permit life.

13. Monitoring of the owl population and success of mitigation implementation will occur.

Murray will provide funding for implementation of the HCP from revenues generated by the harvest and sale of commercial timber on their ownership.

### EFFECTS OF THE PROPOSED ACTION ON THE LISTED SPECIES

#### Species Account

On July 23, 1990 the northern spotted owl was listed as a federally threatened species throughout its range (California, Oregon, and Washington) by the Service. In 1992, the Federal Recovery Team for the northern spotted owl expanded on the ISC conservation strategy recommending establishment and management of HCAs and management for dispersal habitat between HCAs, in a draft recovery plan. Listing documents (including status reviews of 1987, 1989, and 1990), the ISC Strategy and the draft recovery plan, all identified the loss of suitable nesting, roosting, foraging, and dispersal habitat being the primary problems associated with the decline of owl populations. Almost exclusively, these habitat losses were directly associated with timber harvest activities on public and private lands throughout the range of this subspecies. The existing timber management practices often resulted in habitat loss, degradation of habitat, and isolation of owl populations. These have lead to a reduction of the species' numbers, detrimentally modified distribution, reduced fitness, reduced opportunity for survival of individual owls (including adults and their young and dispersing juveniles) and the recovery of individual population units across the range of the subspecies.

Murray has surveyed for owls on their lands over the past three years. Two active site centers contained on their lands have been identified; one containing a pair of owls and the other containing a resident single. Suitable habitat considered necessary for expected survival within the assigned home ranges (administrative requirements based on the need for 40 percent suitable habitat within median home ranges determined by circles 1.8 miles radius of the site center when no other definitive data are available) is presently below acceptable minimums. Suitable habitat for the pair is only 19 percent (1,206 acres) of the total available within a 1.8 miles radius circle. The resident single median home range contains about 32 percent (1,991 acres) suitable habitat which is 77 percent of the necessary habitat components for long-term survival. Reproduction by the pair has not been verified. About 64 percent of the suitable owl habitat on Murray lands are classified as marginal habitat by the State of Washington. Under the permit, Murray would harvest approximately 1,893 acres of suitable habitat in the two

activity circles centered on their land. In addition, site centers of eight other owls lie within 2.5 miles of Murray ownership with 7 of these centered within 1.8 miles. The area of suitable habitat owned by Murray in these adjacent home ranges and scheduled to be harvested under the permit is a cumulative total of 476 acres. Three of these site centers represent pairs, one is a resident single and four are considered "status unknown". One of these is a historic circle and owls have not been detected since 1984. These owls represent less than one-tenth of one percent of the known pairs and resident singles within the range of this subspecies.

#### Analysis of Impacts

The proposed action would result in the take of northern spotted owls, either through direct losses associated with proposed timber harvest activities as well as future losses of unknown owls (including progeny of the existing owls) that might occupy the Murray timberlands. The future taking potentially includes those site centers presently beyond 1.8 miles but within 2.5 miles of Murray ownership. Those additional owls (1 site center at present) could potentially move to Murray lands in the future as other suitable habitat outside Murray lands is eliminated due to timber harvest activities or natural perturbations such as windstorms, disease, or fire.

The proposed action would result in the harvest of approximately 2,430 total acres of suitable nesting, roosting, and foraging habitat within 1.8 miles of up to 6 site centers that are within 1.8 miles of Murray lands. Only one of these presently has more than 40 percent suitable habitat but at the time of harvest (within 10 years of issuance of the permit) that site could drop below the 40 percent suitable habitat figure believed to be necessary for maintaining site occupancy and viability. Three of these site centers are listed as "single-status unknown", two are pairs with only one site containing more than 40 percent suitable habitat, and one is a resident single. In addition, approximately 2,048 acres of suitable habitat on Murray lands that are beyond 1.8 miles would be harvested over 10 years.

HCP implementation would result in increasing the area of dispersal habitat from 11,412 acres in 1993 to 23,233 acres by 2043 and maintaining an average of 23,000 acres through 2093. It would also substantially decrease the size and total area of gaps in the dispersal landscape over what would exist under the present system of forest land management. Increasing dispersal habitat quantity, quality, and improving distribution juxtaposition to minimize the hazards of dispersal are positive benefits for the species. Furthermore, numerous forest management measures relating to land and timber management, and harvest methodology would be implemented to benefit spotted owl dispersal habitat. These measures are listed above in the Description of the Proposed Action section of this opinion. Dispersal habitat is a recovery goal identified in the Draft Recovery Plan for the northern spotted owl, for the area which includes Murray's ownership. The HCP provides for dispersal habitat, well distributed over the 54,610 acres of Murray's ownership, that will aid in dispersal of juvenile owls between HCAs to the west and east of the Murray property. Providing dispersal habitat in this area should also assist in owl movement between owl populations on the Olympic Peninsula and

the Cascade Mountains of Washington. The Service believes that the minimization and mitigation measures specified under the HCP are adequate to offset the loss of suitable habitat, and will contribute to the conservation of the northern spotted owl.

The proposal would also result in long-term validation monitoring of the dispersal landscape to increase the overall understanding of owl ecology and evaluate the success of HCP implementation.

#### Cumulative Effects

Cumulative effects are those impacts of future state and local government, private, and any other non-Federal entity activities that are reasonably certain to occur in the action area. Future Federal actions will be subject to the consultation requirements established in section 7 of the Act and, therefore, are not considered cumulative to the proposed action.

Timber sales on adjacent state and private lands are expected to continue. Harvest of suitable habitat will further reduce the habitat base available for the survival and recovery of the species. However, all but one of the owl circles within 2.5 miles of the Murray boundaries are below the 40 percent suitable necessary for long-term survival and viability of resident owls. These sites are subject to Washington Forest Practices Act regulations which prohibit the harvest of suitable habitat within 1.8 miles of site centers when less than 40 percent suitable habitat is available. Therefore, without a change in laws, issuance of a section 10(a) permit allowing take, or issuance of a section 4(d) rule under the Act allowing take; no further harvest can be anticipated. Suitable owl habitat located outside of owl circles on adjacent state and private lands will continue to be harvested under current Washington State Forest Practices laws.

#### Incidental Take

Section 9 of the Act prohibits any taking (i.e., to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or attempt to engage in any such conduct) of listed fish and wildlife species without special exemption. Harm is further defined to include significant habitat modification or degradation that results in death or injury to listed species by significantly impairing essential behavior patterns, including breeding, feeding, or sheltering. Under the terms of sections 7(b)(4) and 7(o)(2) of the Act, taking that is incidental to and not a purpose of the agency action is not considered prohibited taking within the bounds of the Act, provided such taking is in compliance with this incidental take statement. The reasonable and prudent measures described below are non-discretionary and must be undertaken by the agency, the applicant, or made a binding condition of any grant or permit issued to the applicant, as appropriate, in order for the exemption in section 7(o)(2) to apply.

The Service anticipates the following take which would be associated with implementation of the proposed action:

1. Up to 20 individual resident spotted owls for the first 10 years of the permit through incidental take associated with timber harvest activities due to habitat loss and disruption. This total number assumes complete pair occupancy of 10 site centers: two located entirely within Murray lands in the Mineral Block, seven within 1.8 miles of Murray lands, and one site center beyond 1.8 miles but within 2.5 miles of Murray lands that have the potential to move onto or immediately adjacent to Murray lands during the life of the project.

2. In addition, 10 owls may be taken each succeeding decade until 2093 even though nearly all suitable habitat will be gone after the first decade of HCP implementation. This situation is highly unlikely. However, successful owl nests have been documented in marginal habitats not normally considered as suitable for successful nesting.

#### Reasonable and Prudent Measures

The following reasonable and prudent measure is necessary or appropriate to minimize the impact of the incidental taking authorized by the section 10(a)(1)(B) permit:

- 1. Any incidental take of the owl must comply with all of the terms and conditions of the section 10(a)(1)(B) permit, including the provisions of the Implementation Agreement.

#### Terms and Conditions

In order to be exempt from the prohibitions of section 9 of the Act, the following terms and conditions, which implement the reasonable and prudent measure described above, must be complied with:

A section 10(a)(1)(B) incidental take permit, as evaluated and described in this biological opinion, must be issued by the Service.

#### Disposition of Dead, Injured, or Sick Northern Spotted Owls

*The Service should*

Upon locating dead, injured, or sick owls, initial notification must be made within 3 working days of the finding to the Service's Division of Law Enforcement, Olympia, Washington (206)534-9300. The Service's Olympia Field Office should also be notified at (206)753-9440. Written notification to both offices must be made within 5 calendar days and include the date, time, and location of the carcass, a photograph, and any other pertinent information. Care must be taken in handling sick or injured wild animals to ensure effective treatment and care, and in handling dead specimens to preserve biological material in the best possible state.

Injured owls shall be transported to a qualified veterinarian. Should any treated owls survive, the Service shall be contacted regarding the final disposition.

### Conservation Recommendations

Sections 2(c)(1) and 7(a)(1) of the Act mandate Federal agencies to utilize their authorities to carry out programs for the conservation of listed species. The Term "conservation recommendations" has been defined as suggestions from the Service regarding discretionary measures to minimize or avoid adverse affects of a proposed action on listed species or their designated critical habitat. The following recommendation is offered:

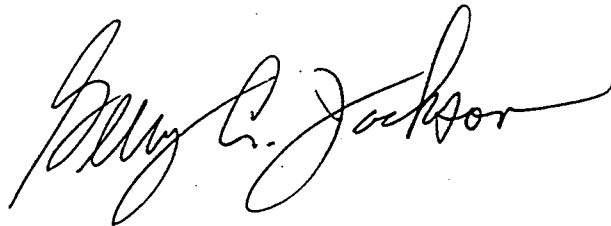
Continue annual monitoring of activity site centers for owl presence and reproductive status.

### CONCLUSION

This concludes formal consultation on issuance of a section 10(a)(1)(B) permit to allow incidental take of northern spotted owls by Murray during harvest of timber on their lands within the Mineral Block of eastern Lewis County, Washington. Reinitiation of formal consultation is required if:

1. the amount or extent of allowable incidental take is reached or exceeded during the life of the permit and HCP;
2. new information reveals effects of the agency action that may adversely affect listed species or critical habitat in a manner or to an extent not considered in this biological opinion;
3. the agency action is subsequently modified in a manner that causes an effect to a listed species or critical habitat that was not considered in this biological opinion; or
4. a new species is listed or critical habitat designated that may be affected by this action (50 CFR 402.16).

Any questions or comments should be directed to the Field Supervisor, Olympia Field Office, at (206) 753-9440.

A handwritten signature in cursive script, reading "Gary L. Jackson". The signature is written in black ink and is positioned in the lower right quadrant of the page.



## LITERATURE CITED

- Lujan M., Jr., D.R. Knowles, J. Turner, and M. Plenert. 1992. Draft recovery plan for the northern spotted owl. USDI - Fish and Wildlife Service, Portland, Oregon.
- Murray Pacific Corporation. 1993. Habitat conservation plan for the northern spotted owl (Strix occidentalis caurina) on timberlands owned by the Murray Pacific Corporation, Lewis County, Washington. Prepared by Beak Consultants, Inc., Kirkland, Washington.
- Thomas, J.W., E.D. Forsman, J.B. Lint, E.C. Meslow, B.R. Noon, and J. Verner. 1990. A conservation strategy for the northern spotted owl. Interagency Scientific Committee to Address the Conservation of the Northern Spotted Owl, Portland, Oregon.
- U.S. Department of Agriculture, U.S. Department of the Interior, National Oceanic and Atmospheric Administration, and the Environmental Protection Administration. 1993. Forest Ecosystem Management: Ecological, Economic, and Social Assessment. A Report of the Forest Ecosystem Management Assessment Team. July 1993. Portland, Oregon.
- U.S. Department of the Interior. 1987. The northern spotted owl status review. Fish and Wildlife Service. Portland, Oregon. 47pp.
- U.S. Department of the Interior. 1989. The northern spotted owl; a status review supplement. Fish and Wildlife Service. Portland, Oregon. 113pp.
- U.S. Department of the Interior. 1990. 1990 Status Review: northern spotted owl. Report to the Fish and Wildlife Service. Portland, Oregon. 95pp.
- U.S. Department of the Interior. 1992. Recovery plan for the northern spotted owl-Draft. Fish and Wildlife Service. Portland, Oregon.
- U.S. Fish and Wildlife Service. 1993. Environmental assessment for the proposed issuance of a permit to allow the incidental take of the northern spotted owl [a threatened species under section 10(a) of the Endangered Species Act of 1973, as amended] on Murray Pacific lands in Lewis County, Washington. Prepared by Beak Consultants, Inc., Kirkland, Washington.